



United States Department of Agriculture  
Natural Resources Conservation Service

## CSP Job Sheet

### Air Quality Enhancement Activities – Ammonia



- Inject or incorporate rather than broadcast-apply ammonia-based nitrogen fertilizers
- Utilize an approved feed management system (with a National Research Council-recommended nutrition plan)
- Store ammonia-based fertilizers in approved storage areas

#### Enhancement Activities

CSP offers the opportunity to reward or encourage activities that address air quality and atmospheric change issues related to agricultural operations.

#### Benefits

These activities will reduce ammonia emissions from agricultural operations, which in turn will reduce the formation of fine particulate matter (2.5 microns and smaller [ $PM_{2.5}$ ]).

#### CSP Payments

A participant can earn payments by initiating or maintaining any of the following activities:

- Use a Comprehensive Nutrient Management Plan
- Split fertilizer applications over a range of time



*Photo Courtesy Iowa State University*

**CSP Enhancement Activity Task Sheet**  
**Air Resources: Ammonia**

**Client's Acknowledgement Statement:**

I have elected to use the following Air Resource Management activities and understand the requirements of the selected activities (Check all that apply):

- ☐ Use a Comprehensive Nutrient Management Plan (Ammonia-01)
- ☐ Split fertilizer applications over a range of time (Ammonia-02)
- ☐ Inject or incorporate rather than broadcast-apply ammonia-based nitrogen fertilizers (Ammonia-03)
- ☐ Utilize an approved feed management system (with a National Research Council-recommended nutrition plan) (Ammonia-04)
- ☐ Store ammonia-based fertilizers in approved storage areas (Ammonia-05)

I agree that the following information will be provided to NRCS upon request:  
Written documentation of the activity performed (use attached worksheets or equivalent).  
Copies of dated receipts for equipment or services purchased.

I understand that CSP Enhancements earnings are subject to payment caps and that my actual payments will depend on my CSP Tier level, the land area affected and the number of activities.

I understand that it is my responsibility to obtain all necessary permits and to comply with all laws, regulations and ordinances pertaining to the application of these activities.

Accepted by: /s/ \_\_\_\_\_

Date: \_\_\_\_\_



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## CSP Worksheet

### Air Quality Enhancement Activities – Ammonia

#### Worksheet 1: Use a Comprehensive Nutrient Management Plan (Ammonia-01)

Payment: \$XX/treated acre

A comprehensive nutrient management plan (CNMP) should address all land units that the animal feeding operation (AFO) owner/operator owns or has decision-making authority over **and** on which manure and organic by-products will be generated, handled, stored, or applied. Such a plan should include the following contents:

- Site information
- Production information
- Applicable permits or certifications
- Land application site information
- Manure application plans
- Actual activity records
- Mortality disposal
- Operation and Maintenance

When properly implemented, a CNMP will minimize ammonia losses from the applied manures to the atmosphere.

- Provide a copy of your comprehensive nutrient management plan



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### Air Quality Enhancement Activities – Ammonia

Worksheet 2: Split fertilizer applications over a range of time (Ammonia-02)

Payment: \$XX/treated acre

Split applications of ammonia-based nitrogen fertilizer reduce the ammonia available in the soil and its potential to volatilize into the atmosphere.

- Provide a copy of your management plan for applying fertilizer in split applications, or actual documentation of 1-2 years of split applications



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## CSP Worksheet

### Air Quality Enhancement Activities – Ammonia

Worksheet 3: Inject or incorporate rather than broadcast-apply ammonia-based nitrogen fertilizers (Ammonia-03).

Payment: \$XX/treated acre/treatment

Injecting ammonia based solid and liquid fertilizers will help to minimize ammonia losses to the atmosphere. The injection slit on the soil surface must be closed to provide a barrier to further ammonia losses.

- Provide a copy of your management plan for injecting ammonia based nitrogen fertilizers, or documentation of 1-2 years of injecting or incorporating ammonia based fertilizers



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## CSP Worksheet

### Air Quality Enhancement Activities – Ammonia

- Worksheet 4 Utilize an approved feed management system (with a National Research Council-recommended nutrition plan) (Ammonia-04)

Payment: \$XX/animal unit equivalent

Adjustments to animal feeding strategies can help reduce nitrogen levels in animal manures, which can reduce emissions of ammonia from manure. Matching diet to animal age and gender, grouping feeding by production requirements (high versus low production dairy cows, for instance), and increasing the precision with which compounds in the feed (amino acids, minerals, and other nutrients) match the current requirements of the animal are all viable strategies for reducing ammonia emissions.

- Provide a copy of your feed management plan for your animal operation



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## CSP Worksheet

### Air Quality Enhancement Activities – Ammonia

- Worksheet 5: Store ammonia-based fertilizers in approved storage areas (Ammonia-05)

Payment: \$XXX/year

Ammonia based fertilizer stored on-farm should be stored in a dry, cool location to minimize the potential for ammonia volatilization and loss to the atmosphere.

Provide a copy of your fertilizer storage system for your operation